

## ABSTRACT

The present invention is an upstream power control system, within a cable modem which controls the power consumption of the cable modem. The power control system comprises a MAC chip which synchronizes upstream communication signals for transmission to a cable network and outputs an upstream control signal, an upstream amplifier which receives the synchronized upstream communication signals, and a complex programmable logic device (CPLD). The CPLD controls the upstream amplifier in response to the upstream control signal such that the upstream amplifier is powered on during transmission of the communication signals, and powered off when not transmitting, which results in the reduction of power consumed by the cable modem.